

QUEUE SCHEDULING MECHANISM IN A DATA PACKET TRANSMISSION SYSTEM

Abstract of the Disclosure

A queue scheduling mechanism in a data packet transmission system, the data packet transmission system including a transmission device for transmitting data packets, a reception device for receiving the data packets, a set of queue devices respectively associated with a set of priorities each defined by a priority rank for storing each data packet transmitted by the transmission device into the queue device corresponding to its priority rank and a queue scheduler for reading, at each packet cycle, a packet in one of the queue devices determined by a normal priority preemption algorithm. The queue scheduling mechanism includes a credit device that provides, at each packet cycle, a value N defining the priority rank to be read by the queue scheduler from the queue device corresponding to the priority N instead of the queue device determined by the normal priority preemption algorithm. The queue scheduling mechanism further includes an exhaustive priority register that registers the value of at least one exhaustive priority rank to be read by the queue scheduler from the queue device corresponding to the exhaustive priority rank rather than from the queue device corresponding to the priority N.

Figures